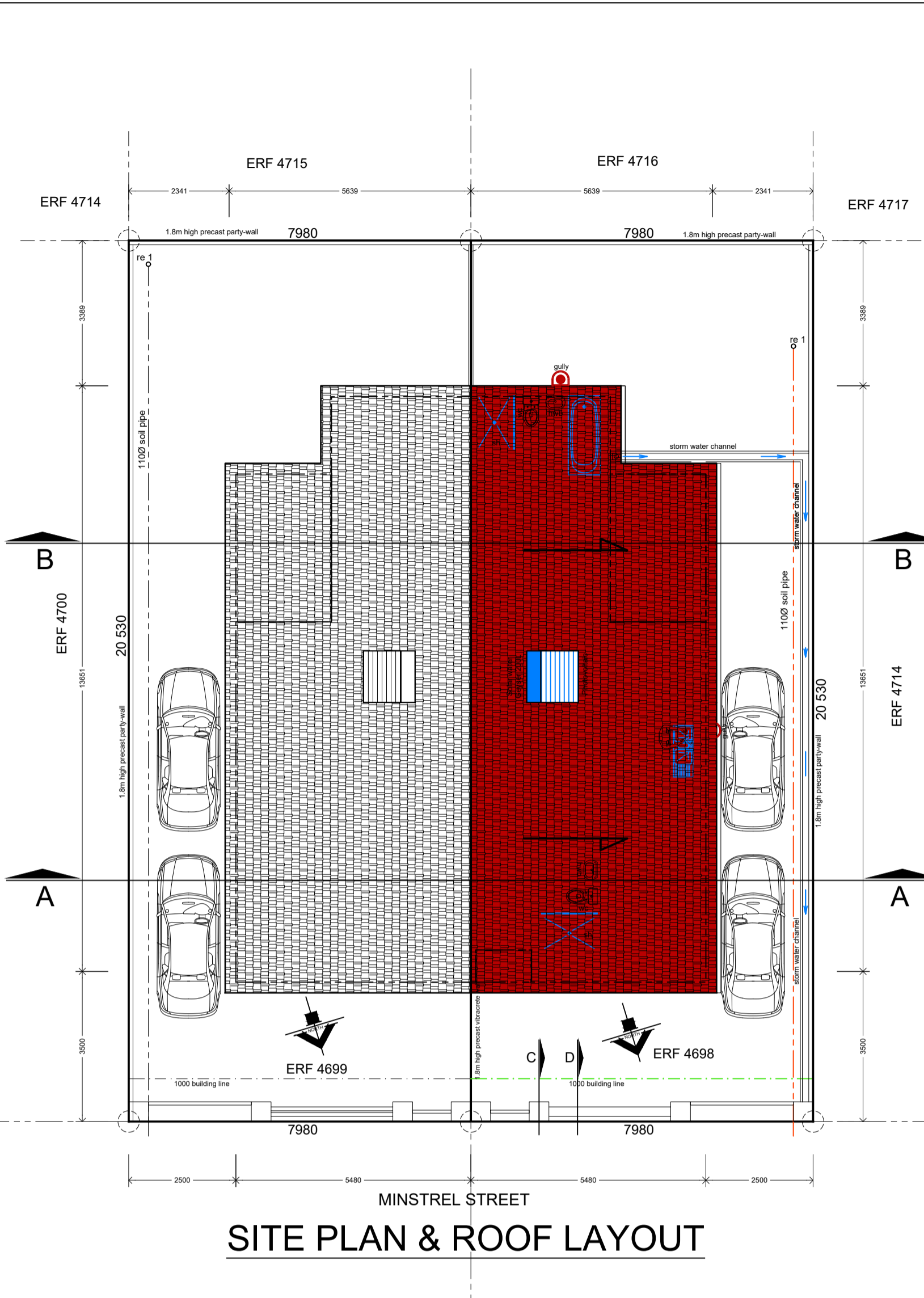
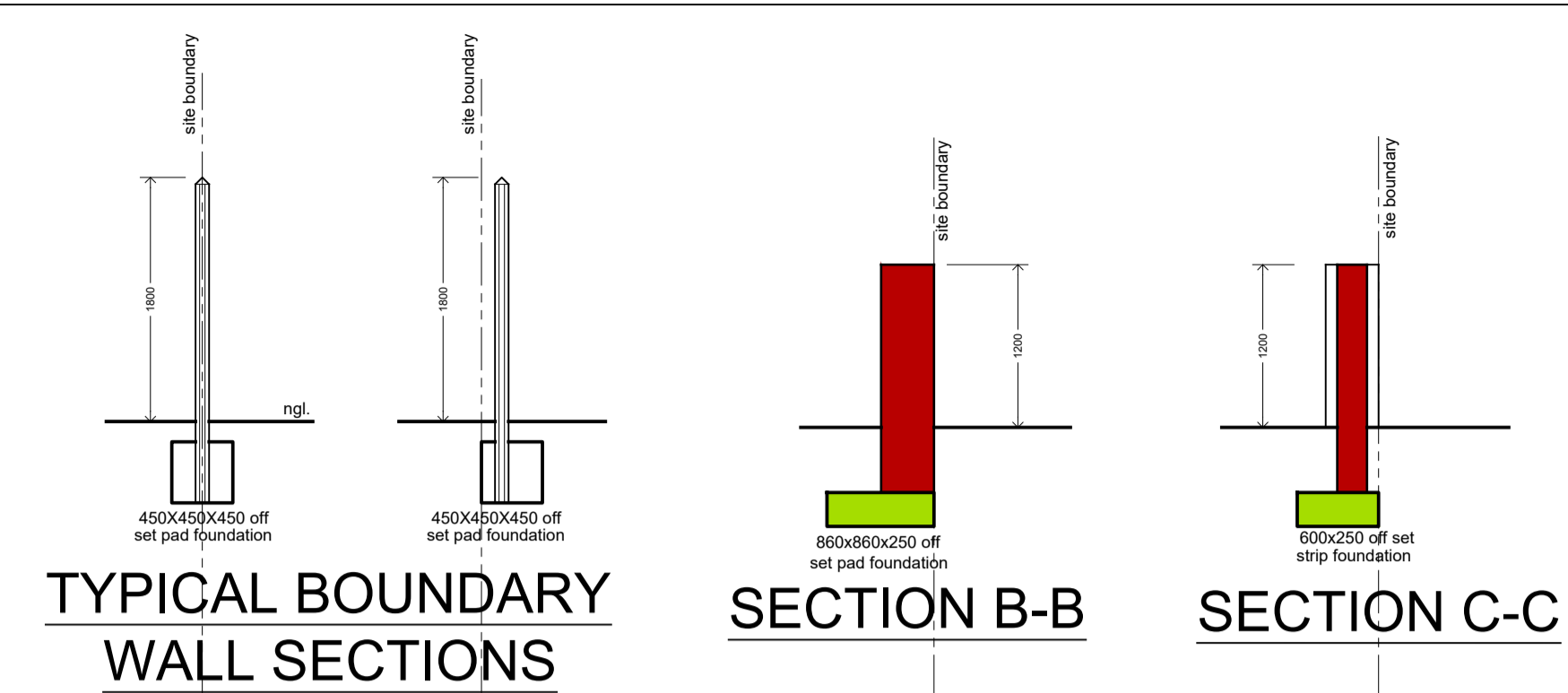


SITE PLAN & GROUND STOREY



SITE PLAN & ROOF LAYOUT



TYPICAL BOUNDARY WALL SECTIONS

Boundary Wall:

- To be built with Cement blocks.
- To a max. height of 1200mm with 345x345mm columns @ max. 2800mm c/c, as per SANS 10400 Part K - (free standing walls with pier projection on 2 side)
- 220mm thick, 900mm high brickwork in between columns resting on 600x250mm strip foundations not projecting beyond any boundary line as shown.
- Columns resting on 800x800x250 pad foundations not projecting beyond any boundary line as shown.
- Boundary walls to be plastered & painted to match house.

TYPE	A	B	C	D
WIN. No.	W1	W2	W3	SD1
GLAZING	6mm clear safety glass as SANS 10400 Part N	6mm clear safety glass as SANS 10400 Part N	6mm clear safety glass as SANS 10400 Part N	6mm clear safety glass as SANS 10400 Part N
TOTAL GLAZED AREA	1.44sqm	1.08sqm	0.81sqm	5.04sqm
TOTAL	3	1	1	1

FENESTRATION CALCULATIONS

FENESTRATION CALCULATIONS		WINDOW SCHEDULE	
GROUND STOREY	NET FL. AREA 53.24sqm	Aluminium windows	Windows to have min 10% light of floor area and min 5% ventilation of floor area.
	GLAZ. AREA 21.25sqm		
	FENESTR. % 21.13%		

NOTE: Fenestration to inner footprint are above 20% thus building does not comply to regulation Shading Ratio (PH) = 0.50

XA Requirements - Aluminium SHGC - 0.77 with 6mm single clear safety glass U-value - 5.6
Obscure glass to all bathrooms

HOT WATER DEMAND	
Roof Specification	Hot water insulation
Zone 4 upward flow min req'd 3.7	114 dwelling in Zone 4
Roof air space upwards flowing 0.18	Occupants 4
Roof & ceiling construction 0.40	Water usage / person/day 80L
Reflective insulation 0.75	Daily household consumption (lpc) 240L
Flexible mineral rock wool 115 thick 2.50	Ambient input temp. 16°C
R-value achieved 3.63	target output 65°C
Piping insulation 3.9°C	Average difference in temp. 39°C
For pipes < 80mmØ R value to be 1.0	Specific heat of 1L of water J/kgK 4.182
For piping > 80mmØ R value to be 1.5	Daily energy usage (kWh/day) KJ 32143
Hot water cylinder insulation R value to be 2.0	kWh per day (1/3600) kWh 10.87
Min 50% hot water supply by solar heating system	Annual energy usage kWh 3968
	minimum total hot water storage capacity 200L
	Power consumption for 50% as 200L is 1984kWh

HOT WATER DEMAND

SPECIFICATION:
BOUNDARY PEGS:
 To be pointed out to Building Inspector before construction commences.
FOUNDATIONS AND FLOORING:
 200mm external cavity walls to be built on strip foundations, cavity below stepped dpc filled with concrete on 700x250 footings. 30mm screed on 100mm concrete surface bed on DPM on well compacted fill. Finish floor level to be a minimum of 200mm above NGL. Provide brick force every 3 courses.
LINTELS:
 APS precast lintels to be built over openings in brickwork exceeding 1.2m to manufacturers spec, with a min 4 courses brickwork above lintel.
MAIN ROOF:
 Cement roof tiles on 38x38 battens @ 320mm c/c, on 150 micron underlay on engineers designed trusses @ 750mm c/c, as per SANS 10400 Part L. Batt's fixed and tied down to 114x28 wall plate that's tied down to brickwork by means of 1.2mmx30mm hoop iron straps @ 50mm deep. Provide 114x28mm diagonal bracing @ 45° nailed to underside of rafter at each end and in both planes. Gable end walls tied back to roof structure with galvanized hoop iron straps 3mmx30mm @ 600mm c/c, embedded 300mm into wall.
RAINWATER GOODS:
 1100 Aluminium gutter with matching 750 downpipes & accessories by Marley plumbing or similar approved.
PLASTER:
 External plaster to walls and plaster bands to be one coat cement plaster finished with a wood float.
CEILING:
 Fixed skinned Rhinoboard ceiling with cornice to 38x38mm timber battens @ 400mm c/c, to underside of the timber beam. Skimmed ceiling to have a R-value of 0.05. All ceiling spaces to be insulated with 150mm thick fibreglass blanket with a R-value of 0.36.
JOINERY AND IRONMONGERY:
 All new windows and doors to be aluminium as on plan.
GLAZING:
 All glazing to comply with SABS 10137 & SANS 10400 Part N - Access doors & sidelights to have safety glass. Obscure glass to bathrooms.
 Windows to receive 6mm safety glass as per SANS 10400 Part N.
STORMWATER DISPOSAL:
 Stormwater to front of house to be surface drained to street.
HOT WATER:
 50% of the hot water requirements must be heated by means other than electrical resistance.
GLYSER:
 Solar water panels with integrated glyser to be fitted to roof by approved supplier - 200 litre glyser with 400 psi pressure reducing valve. Situated on RC roof per engineer's design. All installations will be done in accordance with SANS 10252-1 and SANS 10106 and other relevant standards.
 Estimation of consumption - design to allow for 200L hot water per day per person.
 All exposed water pipes to and from the glyser to be insulated with pipe insulation material with R-value:
 Internal diameter of pipe < 80mm : min R-value = 1
 Internal diameter of pipe > 80mm : min R-value = 1.5
 Cold water supply to be insulated a minimum of 1m from inlet
 Hot water vessels and tanks shall be insulated with a material achieving a minimum R-value of 2
ROOF & CEILING:
 Climatic zone 4 - Minimum required Total R-value (m² KW) = 3.7
 Heat flow direction up)
 160mm Isotherm flexible polyester blanket insulation R = 3.48 (or equal approved SANS 10400XA compliant) between Reinforced Concrete roof and ceiling. Achieves recommended deemed-to-satisfy min thickness (mm) for insulation requirements + roof = 3.80m² KW
 200mm Concrete slab: U-value m² KW = 3.10 & R-value (m² KW) = 0.32

FLOOR AREAS:

SITE AREA: 163.82m²

PRO. GROUND: 61.37m²

PRO. TERRACE: 7.68m²

PRO. STOEP: 00.97m²

TOTAL: 70.02m²

COVERAGE OF SITE: 42.74%

OWNER:.....

ARCHITECT:.....



CLIENT:.....

HAGLEY DEVELOPMENT

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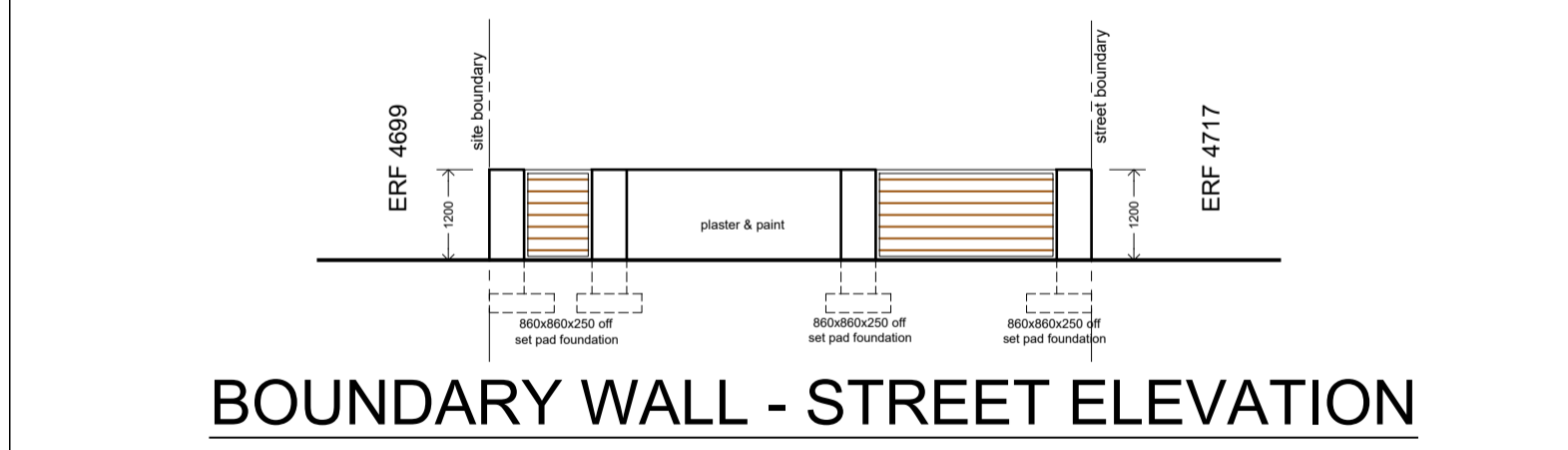
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PROPOSED DWELLING ON ERF ERF 4698

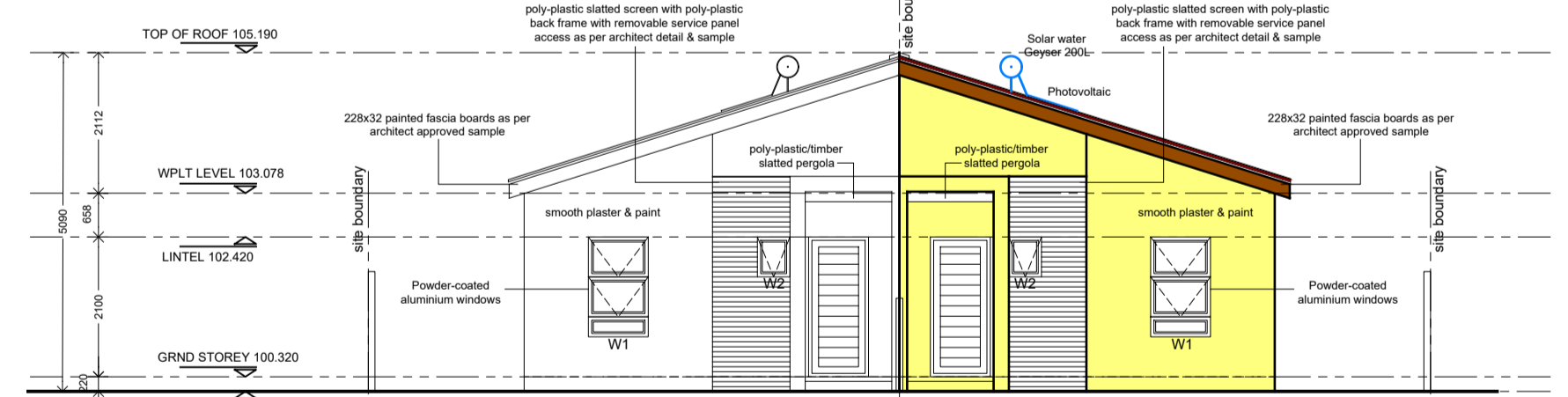
BUILDING PLAN FOR COUNCIL SUBMISSION

DESIGN/DRAMA/CHECK AF DATE 24.10.03 SCALE 1:100

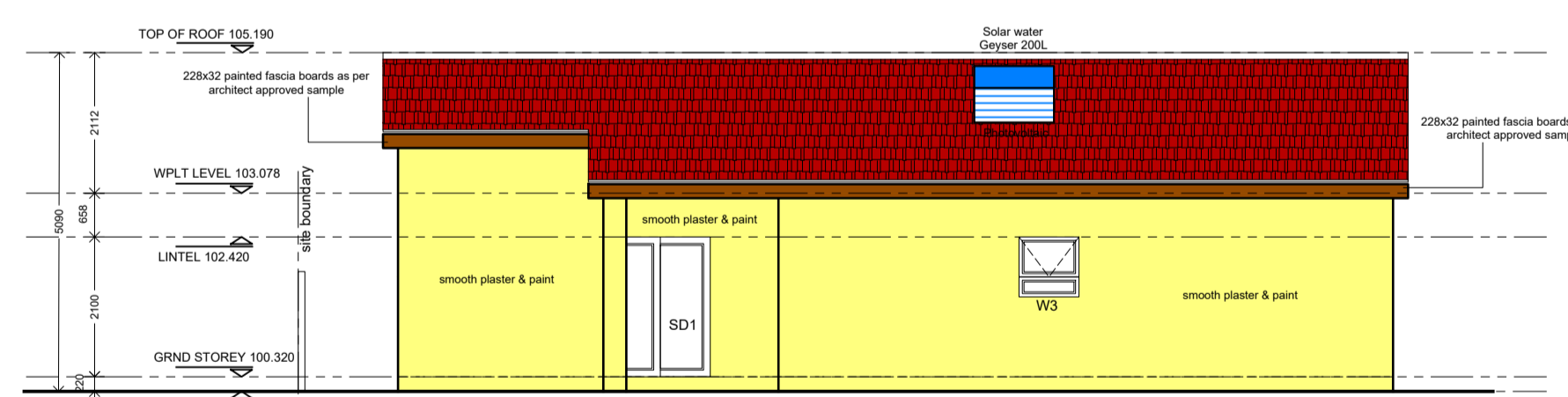
4698/CS/2024/01 REVISION Rev 0



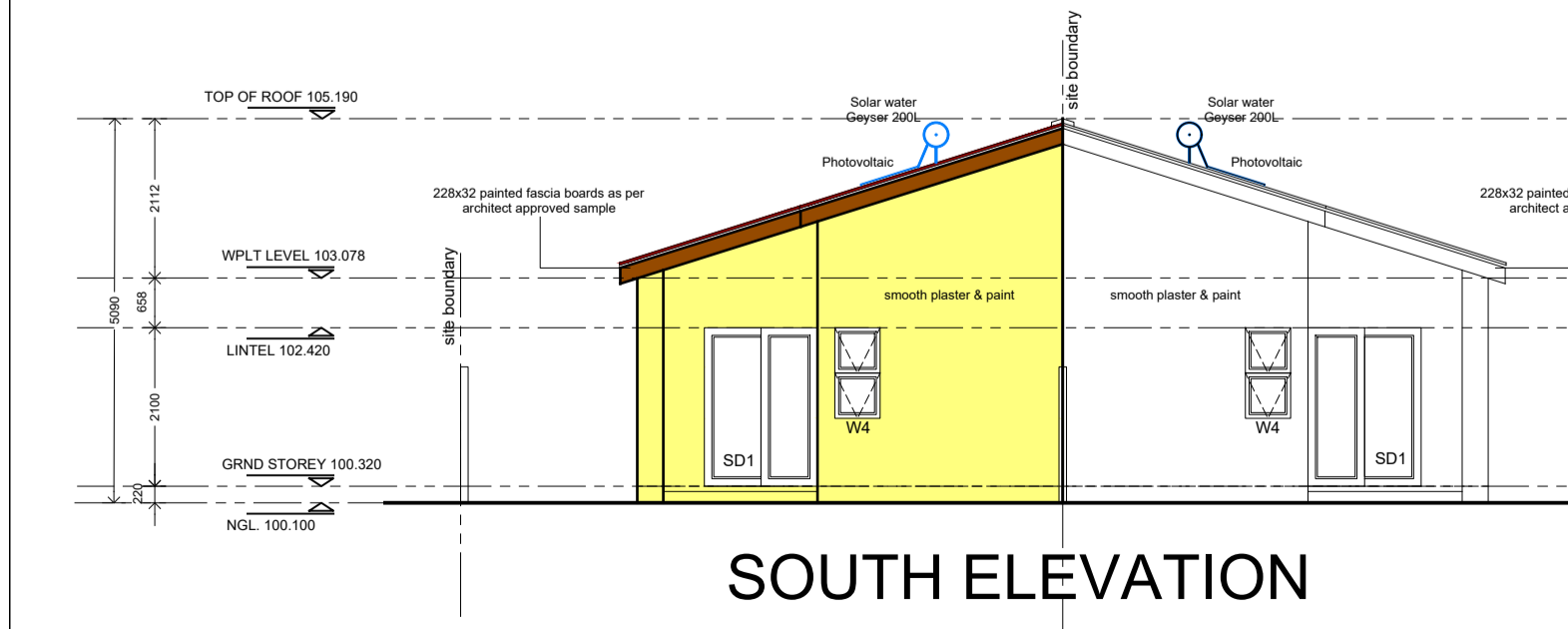
BOUNDARY WALL - STREET ELEVATION



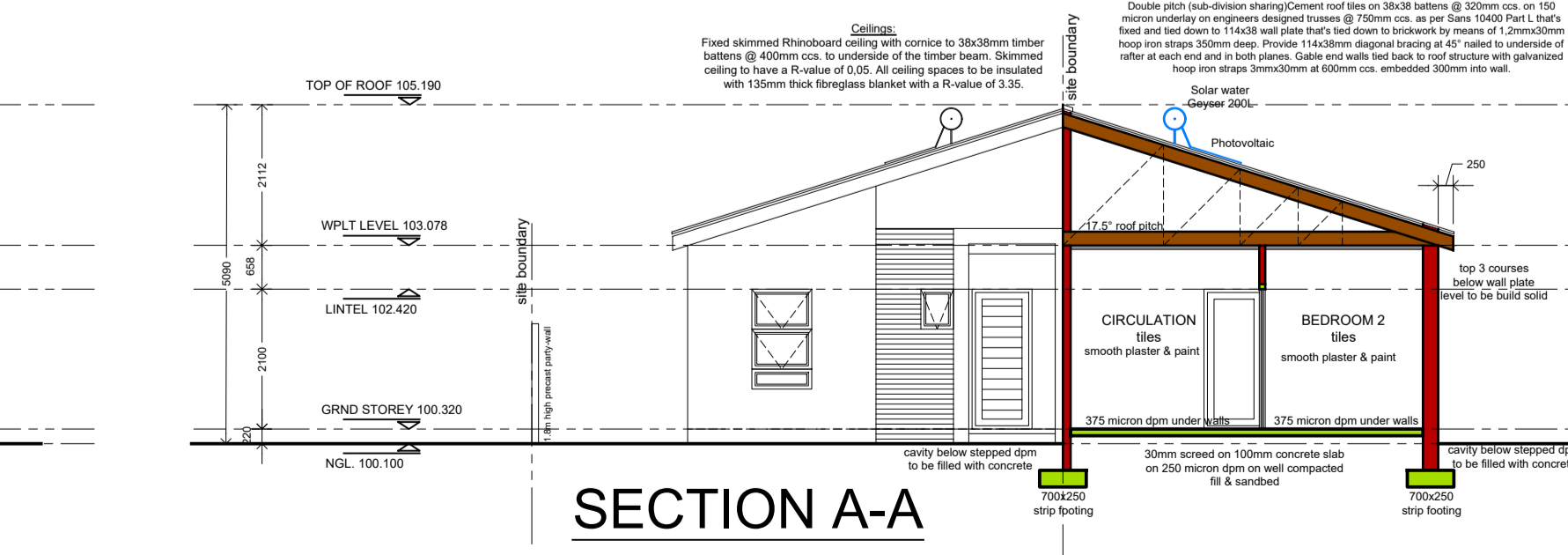
NORTH ELEVATION



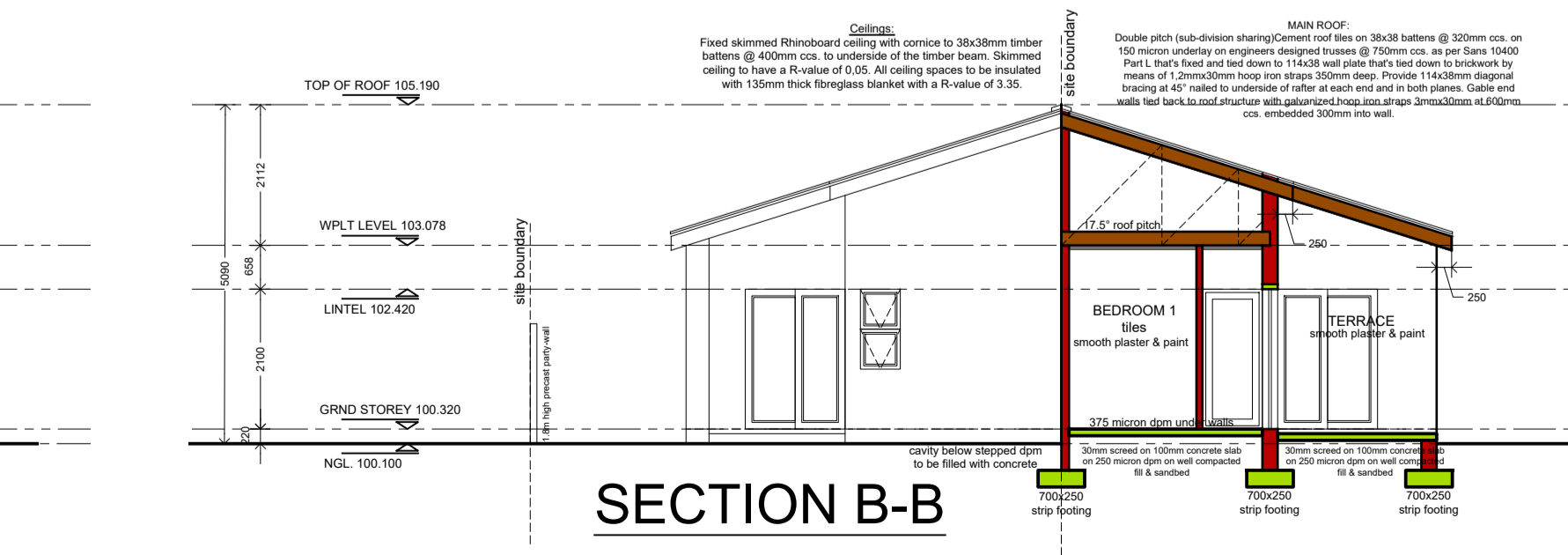
WEST ELEVATION



SOUTH ELEVATION



SECTION A-A



SECTION B-B